

REMARKS

Claims 2, 5-14, 16, 17, 19, 20, 23-25, 27-48, 50-54, and 56-70 are pending in the application. By this paper, claims 19, 20, 43, 57, 65, and 66 are amended and claims 4, 18, and 21 are cancelled without prejudice or disclaimer. As discussed in detail below, the amendments to the claims place the application in condition for allowance. As such, Applicants respectfully request that the Examiner enter the amendments after final action under MPEP § 714.12 and reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

APPLICANTS' STATEMENT OF INTERVIEW

In response to the Examiner's Interview Summary mailed April 16, 2009, Applicants provide this statement. Applicants' representatives thank the Examiner for the courtesies extended during the telephone interview of April 14, 2009. Independent claims 43, 57, and 65 were discussed with respect to the rejection under 35 U.S.C. § 101. The general thrust of Applicants' principal arguments included that claims 43, 57, and 65 are each directed to statutory subject matter as each recite a sufficient transformation under *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008). The Examiner agreed that claims 43, 57, and 65 are each directed to statutory subject matter. As such, claim 65 and corresponding dependent claims 27-42, 50-54, 56, and 66-70, which are not subject to any other rejection, are in condition for allowance. *See* Office Action, 11/24/2008, p. 18 (listing claims 65-70, 50-56, and 27-42 as reciting possible allowable subject matter).

Additionally, a proposed amendment to claims 43 and 57 to recite the allowable subject matter of dependent claim 21, including intermediary claim 18, was discussed.

See Office Action, 11/24/2008, pp. 18-19 (listing claim 21 as reciting possible allowable subject matter). The Examiner agreed that amending independent claims 43 and 57 to recite the allowable subject matter of claim 21 and intermediate claim 18 would overcome the double patenting and prior art rejections and place each of claims 43 and 57 in condition for allowance. Thus, claims 43 and 57 are amended in accordance with the discussed proposal and are in condition for allowance, along with corresponding dependent claims 2, 5-15, 16, 17, 19, 20, 23-25, 44-48, and 58-64.

Based on the interview with the Examiner, and for the reasons set forth below, it is believed that a full and complete response has been made to the outstanding Office Action and that the present application is in condition for allowance.

REJECTION UNDER DOUBLE PATENTING

Claim 43 stands rejected on the ground of nonstatutory obviousness-type double patenting in view of claims 12 and 13 of Bahel et al. (U.S. Pat. No. 7,010,926) and in view of Kikuchi et al. (U.S. Pub. No. 2004/0129011). This rejection is respectfully traversed.

Claim 43 has been amended to recite the allowable subject matter of claim 21, which is not subject to the double patenting rejection. As discussed and agreed during the telephone interview of April 14, 2009, the amendment to claim 43 overcomes the double patenting rejection. Thus, reconsideration and withdrawal of the rejection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 101

Claims 1-14, 16-21, 23-25, 27-48, 50-54, and 56-70 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. With respect to claims 1, 3-4, 18, and 21, the rejection is rendered moot by cancellation without prejudice or disclaimer. With respect to claims 2, 5-14, 16, 17, 19, 20, 23-25, 27-48, 50-54, and 56-70, the rejection is respectfully traversed.

With respect to the method of amended claim 43, as discussed with the Examiner, the claim recites a transformation, sufficient under *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008), to render the claim statutory under 35 U.S.C. § 101. Specifically, claim 43 recites inputting condensing unit parameters and evaporator parameters for a cooling system, at least one of the condensing unit parameters and the evaporator parameters including configuration information for a heat exchanger of the cooling system including a number of equivalent parallel refrigerant circuits information. Claim 43 also recites inputting compressor parameters for the cooling system and inputting refrigerant properties for a refrigerant flowing through the cooling system. Claim 43 also recites processing the condensing unit parameters, the evaporator parameters, the compressor parameters, and the refrigerant properties through a model of the cooling system. Claim 43 also recites generating system outputs based on the processing, generating a list of flow control devices based on the system outputs, and selecting a flow control device from the list of flow control devices. As discussed with the Examiner, these inputting, processing, generating, and selecting steps include a sufficient transformation under *In re Bilski* to render claim 43 statutory under 35 U.S.C. § 101. Claims 16, 17, 19, 20, 23-25, and 44-48 depend from claim 43 and likewise recite statutory subject matter.

With respect to the method of amended claim 57, as discussed with the Examiner, the claim recites a transformation, sufficient under *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008), to render the claim statutory under 35 U.S.C. § 101. Specifically, claim 65 recites receiving condenser parameters, evaporator parameters, and compressor parameters of a cooling system, configuring a model of the cooling system according to the parameters, generating at least one flow control device selection parameter with a computer simulation of the cooling system based on the configured model, generating a list of flow control devices based on the at least one flow control device selection parameter generated by the computer simulation, and selecting a flow control device from the list of flow control devices. As discussed with the Examiner, these receiving, configuring, generating, and selecting steps include a sufficient transformation under *In re Bilski* to render claim 57 statutory under 35 U.S.C. § 101. Claims 2, 5-14, and 58-64 depend from claim 57 and likewise recite statutory subject matter.

With respect to the method of claim 65, as discussed with the Examiner, the claim recites a transformation, sufficient under *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008), to render the claim statutory under 35 U.S.C. § 101. Specifically, claim 65 recites receiving data in the form of condenser parameters, evaporator parameters, and compressor parameters for a cooling system, in the form of a dry bulb temperature, and in the form of at least one first air property input including at least one of a wet bulb temperature, a relative humidity, a humidity ratio, a specific volume, an enthalpy, and a dew point temperature. The method also recites calculating at least one second air property input and configuring a model of the cooling system according to the inputted parameters, the first air property input, and the calculated second air property input. The method also

recites generating an output with a computer simulation of the cooling system based on the configured model. As discussed with the Examiner, these receiving, calculating, configuring, and generating steps include a sufficient transformation under *In re Bilski* to render claim 65 statutory under 35 U.S.C. § 101. Claims 27-42, 50-54, 56, and 66-70 depend from claim 65 and likewise recite statutory subject matter.

Reconsideration and withdrawal of the rejections are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 57, 2, 5, 6, and 11-13 stand rejected under 35 U.S.C. § 103(a) in view of Rossi (U.S. Pat. No. 6,701,725) and Shiiba et al. (U.S. Pat. No. 6,629,008). This rejection is respectfully traversed.

As discussed above, claim 57 has been amended to recite the allowable subject matter of claim 21. The prior art fails to teach or suggest generating a list of flow control devices based on at least one flow control device selection parameter generated by a computer simulation, as recited by claim 57. *See* Office Action, p. 19, para. 9.4. As such, claim 57 defines over the prior art. Claims 2, 5, 6, and 11-13 depend either directly or indirectly from claim 57 and likewise define over the prior art. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 43, 16-20, 23-25 and 44-48 stand rejected under 35 U.S.C. § 103(a) in view of Sachiko Kumada (JP Laid Open App. No. H 9-257319), Scherer et al. (U.S. Pat. No. 3,708,998), Kikuchi et al. (U.S. Pub. No. 2004/0129011). This rejection is respectfully traversed.

As discussed above, claim 43 has been amended to recite the allowable subject matter of claim 21. The prior art fails to teach or suggest generating a list of flow control devices based on system outputs that are based on processing condensing unit parameters, evaporator parameters, compressor parameters, and refrigerant properties through a model of a cooling system, as recited by claim 43. See Office Action, p. 19, para. 9.4. As such, claim 43 defines over the prior art. Claims 16-20, 23-25, and 44-48 depend either directly or indirectly from claim 43 and likewise define over the prior art. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 8-10 stand rejected under 35 U.S.C. § 103(a) in view of Rossi (U.S. Pat. No. 6,701,725), Shiiba et al. (U.S. Pat. No. 6,629,008), and Kagawa (U.S. Pat. No. 5,687,094). This rejection is respectfully traversed.

Claims 8-10 depend either directly or indirectly from claim 57, which defines over the prior art as discussed in detail above. Therefore, claims 8-10 likewise define over the prior art. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 4, 7, and 14 stand rejected under 35 U.S.C. § 103(a) in view of Rossi (U.S. Pat. No. 6,701,725), Shiiba et al. (U.S. Pat. No. 6,629,008), and Pray (U.S. Pat. No. 4,885,694). With respect to claim 4, the rejection is rendered moot by cancellation. With respect to claims 7 and 14, the rejection is respectfully traversed.

Claims 7 and 14 depend either directly or indirectly from claim 57, which defines over the prior art as discussed in detail above. Therefore, claims 7 and 14 likewise define over the prior art. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 58-64 stand rejected under 35 U.S.C. § 103(a) in view of Rossi (U.S. Pat. No. 6,701,725), Shiiba et al. (U.S. Pat. No. 6,629,008), and Morgan (U.S. Pub. No. 2002/0040280). This rejection is respectfully traversed.

Claims 58-64 depend from claim 57, which defines over the prior art as discussed in detail above. Therefore, claims 58-64 likewise define over the prior art. Reconsideration and withdrawal of the rejections are respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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